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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,155	10/01/2003	Hui-Chuan Hung	67,200-1114	8165

7590 10/02/2006  
TUNG & ASSOCIATES  
Suite 120  
838 W. Long Lake Road  
Bloomfield Hills, MI 48302

EXAMINER

CHAN, EMILY Y

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/677,155

Applicant(s)

HUNG, HUI-CHUAN

Examiner

Emily Y. Chan

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 9-20 is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-12, 16, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 6-8, 13-15 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9-12, 16-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swart US Patent No. 6,268,719.

With respect to the claim 1, Swart ('719) expressly discloses an apparatus (see Figs. 1-9) for electrically testing a microelectronic product (16) as claimed, comprising:

An electrical test head (see fig. 8, test probes 82) to which is mated a microelectronic product (16) for electrically testing the microelectronic product (16); and

A movable electrical probe tip (see Fig. 2, 14) separately positionable from the electrical test head (82).

The difference between the claim invention and Swart ('719)'s reference is that Swart ('719) does not specify that both his test head (82) and movable electrical probe tip (14) operate simultaneously; however, since Swart ('719) discloses that both his test head (82) and movable electrical probe tip (14) are in a scan test machine 210 which is controlled by a computer terminal 72, it would have been to one of ordinary skill in the art that both his test head (82) and movable electrical probe tip (14) can be controlled by the computer terminal 72 for performing the testing operation simultaneously as claimed.

With respect to the claim 2, Swart ('719) discloses that his microelectronic product (16) is semiconductor product (circuit board).

With respect to the claim 3, Swart ('719)'s microelectronic product (16) can be a ceramic substrate.

With respect to the claim 4, Swart ('719)'s microelectronic product (16) can be an optoelectronic product.

With respect to the claim 5, Swart ('719) discloses a controller (72).

With respect to the method claims 9-12 and 16-17 and 19-20, since Swart ('719) teach the claimed apparatus, it would have been obvious to one of ordinary skill in the art that when using the apparatus of Swart ('719), the claimed steps such as providing an electrical test apparatus and sequentially movable positioning the electrical probe tip to sequential positions would have been expected to be performed (see Col. 6, lines 40-52 " the wiper brush successively contacts the test sides on the unit under test").

#### ***Allowable Subject Matter***

Claims 6-8, 13-15 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 6,13 and 18 are indicated allowable because the examiner found that the prior art in the record, taken alone or in combination does not disclose an apparatus and a method for electrical testing comprising the radiation beam source positioned with

respect to the electrical probe tip such as to simultaneously radiation stress the portion of the electrical product other than the electrical contact portion of the microelectronic product as shown by Fig. 5. Claims 7-8 and 14-15 are dependent on claims 6 and 13 respectively and are indicated allowable accordingly.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Furukawa et al US Patent No. 7,071,713 disclose a probe navigation device as claimed (see Figs).

Tanioka et al US publication No. 2002/0053917 disclose a probe structure comprising probe pin (3) and testing board (see Figs).

Blackwood US Patent No. 6,747,464 discloses an integrated circuit test apparatus (see Fig. 1) comprising a probe tip (40) and an optical scanning mechanism (20).


### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Y. Chan whose telephone number is 571-272-1956. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha T Nguyen can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EC  
9/26/05

  
VINH NGUYEN  
PRIMARY EXAMINER  
A.U. 2829  
09/27/06

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Art Unit: 2829

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